

File 155:MEDLINE(R) 1966-2003/Jun W4
 File 5:Biosis Previews(R) 1969-2003/Jun W4
 File 73:EMBASE 1974-2003/Jun W4
 File 34:SciSearch(R) Cited Ref Sci 1990-2003/Jun W4
 File 434:SciSearch(R) Cited Ref Sci 1974-1989/Dec
 File 144:Pascal 1973-2003/Jun W3
 File 2:INSPEC 1969-2003/Jun W4
 File 6:NTIS 1964-2003/Jun W5
 File 8:Ei Compendex(R) 1970-2003/Jun W4
 File 94:JICST-EPlus 1985-2003/Jun W4
 File 99:Wilson Appl. Sci & Tech Abs 1983-2003/May
 File 65:Inside Conferences 1993-2003/Jun W4
 File 35:Dissertation Abs Online 1861-2003/May
 File 95:TEME-Technology & Management 1989-2003/Jun W2

Set	Items	Description
S1	753648	(LIGHT OR PHOTON) (2W) DIODE? ? OR SOLID() STATE() LAMP? ? OR - LED OR LEDS
S2	13895665	THERAP? OR TREAT OR TREATS OR TREATMENT OR TREATED OR TREATING
S3	1230442	SHAPE OR SHAPES OR SHAPING OR SHAPABLE OR SHAPEABLE OR SHAPABILITY OR SHAPABILITY OR MOLD???? OR MOULD???? OR MOLDABILITY OR MOULDABILITY
S4	500	(HEAT??? OR LIGHT???) (2W) (PAD OR PADS)
S5	283577	SHAPES OR SHAPING
S6	1843	S1 AND S2 AND (S3 OR S5)
S7	57973	(LIGHT OR PHOTON) (2W) DIODE? ? OR SOLID() STATE() LAMP? ?
S8	82	S7 AND S2 AND (S3 OR S5)
S9	3	S8/2002 OR S8/2003
S10	79	S8 NOT S9
S11	63	RD (unique items)
S12	43	S2/TI, DE AND S11
S13	43	Sort S12/ALL/PY, D [not relevant]
S14	0	S6 AND S4
S15	1	S1 AND S2 AND S4 [not relevant]

File 155:MEDLINE(R) 1966-2003/Jun W4

Set	Items	Description
S1	143	((LIGHT OR PHOTON) (2W) DIODE? ? OR LED OR LEDS OR LD OR LDS-) (10N) ARRAY? ?
S2	2231843	THERAP?
S3	91946	SHAPE? ? OR SHAPING OR SHAPABLE OR SHAPEABLE OR SHAPEABILITY OR SHAPABILITY
S4	0	S1 AND S2 AND S3
S5	6	S1 AND S3 [not relevant]
S6	121380	(LIGHT OR PHOTON) (2W) DIODE? ? OR SOLID() STATE() LAMP? ? OR - LED OR LEDS
S7	3097324	THERAP? OR TREAT OR TREATS OR TREATMENT OR TREATED OR TREATING
S8	63156	SHAPE OR SHAPES OR SHAPING OR SHAPABLE OR SHAPEABLE OR SHAPABILITY OR SHAPABILITY OR MOLD???? OR MOULD???? OR MOLDABILITY OR MOULDABILITY
S9	93	(HEAT??? OR LIGHT???) (2W) (PAD OR PADS)
S10	206	S6 AND S7 AND S8
S11	0	S9 AND S10
S12	0	S1 AND S7 AND S3

S13	1435	S6 AND S3
S14	78	S7/TI,DE AND S10
S15	58	S2/TI,DE AND S10
S16	10	S15/2002:2003
S17	48	S15 NOT S16
S18	48	Sort S17/ALL/PY,D [not relevant]
S19	5	S1/TI,DE
S20	0	S8 AND S19
S21	18867	PHOTIC()STIMULATION/DE
S22	1950550	S2/DE OR TU/DE OR TH/DE
S23	3	S21 AND S22 AND S3

19/8/3

DIALOG(R)File 155:(c) format only 2003 The Dialog Corp. All rts. reserv.
11947545 99391632 PMID: 10461068

Preclinical evaluation of benzoporphyrin derivative combined with a light -emitting diode array for photodynamic therapy of brain tumors.

May 1999

Tags: Animal; Comparative Study; Human; In Vitro; Support, Non-U.S. Gov't ; Support, U.S. Gov't; Non-P.H.S.

Descriptors: *Antineoplastic Agents--therapeutic use--TU; *Brain Neoplasms--drug therapy--DT; *Glioma--drug therapy--DT; *Photochemotherapy --methods--MT; *Photosensitizing Agents--therapeutic use--TU; *Porphyrins --therapeutic use--TU; Brain Neoplasms--metabolism--ME; Cell Line; Dihematoporphyrin Ether--therapeutic use--TU; Dogs; Glioblastoma --drug therapy--DT; Glioma--metabolism--ME; Light; Mice

CAS Registry No.: 0 (Antineoplastic Agents); 0 (Photosensitizing Agents); 0 (Porphyrins); 97067-70-4 (Dihematoporphyrin Ether)

19/8/5

DIALOG(R)File 155:(c) format only 2003 The Dialog Corp. All rts. reserv.
04570026 84213196 PMID: 6233312

A light -emitting diode array globe protector photostimulator.

Mar 1984

Tags: Human

Descriptors: *Brain Diseases--surgery--SU; *Evoked Potentials, Visual; *Photic Stimulation--instrumentation--IS; *Visual Pathways--physiopathology --PP; Contact Lenses; Optic Nerve--physiopathology--PP

23/7,K/1

DIALOG(R)File 155:MEDLINE(R)
(c) format only 2003 The Dialog Corp. All rts. reserv.
11919478 99362996 PMID: 10434152

[Atypical neuroleptics and selective attention]

Neuroleptiques atypiques et attention selective.

Stip E; Lussier I; Lalonde P; Luyet A; Fabian J

Centre de Recherche Fernand-Seguin, Hopital L.H. Lafontaine, Departement de psychiatrie, Universite de Montreal, Quebec.

L'Encephale (FRANCE) May-Jun 1999, 25 (3) p260-4, ISSN 0013-7006

Journal Code: 7505643

Document type: Journal Article ; English Abstract

Languages: FRENCH

Main Citation Owner: NLM

Record type: Completed

GOALS: The aim of this study was to examine selective attention in patients with chronic and refractory schizophrenia who had been exposed for

six months to atypical neuroleptic medications: risperidone or clozapine. METHOD: 17 patients satisfying DSM III-R criteria for schizophrenia were assessed according to BPRS and PANSS and abnormal involuntary movements to ESRs. Selective attention tasks were performed before treatment with risperidone or clozapine and at two times during the treatment (6 weeks, T1, and 24 weeks, T2). Patients' performance data were compared to data from a group of general population at T1. Selective attention refers to the ability to discriminate relevant information from irrelevant one. This was measured by a visual search task. Subjects had to search for a target specified by a conjunction of features (color and **shape**). The target was a black X, while the distracters were white X's, black O's and white O's. The stimuli were displayed on a Macintosh SE computer. A two-button response box was used for response production and the experiment was run in a dimly lit room. A white-fixation stimulus was shown at the center of the display screen between trials. The number of stimuli displayed on a single trial was 1, 4, 7 or 10. The median RTs and error rates of subjects were computed for each factor (target presence and number of stimuli). RESULTS: A Group X Number of items X Presence of target ANOVA applied on median correct RTs revealed a significant Group X Presence interaction [$F(1,176) = 60.433$, $p < .0001$]. Performances improved with the time ($F2$, $p < .01$). Correlations were found between positive score on PANSS and performance on selective attention ($r39 = -.391$). CONCLUSION: Atypical neuroleptic do not have a deleterious effect on selective attention but a favorable effect on the schizophrenic patients' performance.

Record Date Created: 19991229

Record Date Completed: 19991229

Descriptors: Antipsychotic Agents--pharmacology--PD; *Antipsychotic Agents-- **therapeutic** use-- **TU** ; *Attention--drug effects--DE; *Clozapine --pharmacology--PD; *Clozapine-- **therapeutic** use-- **TU** ; *Risperidone --pharmacology--PD; *Risperidone-- **therapeutic** use-- **TU** ; *Schizophrenia --drug **therapy** --DT; Adult; Chronic Disease; Dose-Response Relationship, Drug; Middle Age; **Photic Stimulation** ; Time Factors

23/7,K/3

DIALOG(R) File 155:MEDLINE(R)

(c) format only 2003 The Dialog Corp. All rts. reserv.

11343601 98223722 PMID: 9555106

Toward a functional analysis of the basal ganglia.

Hayes A E; Davidson M C; Keele S W; Rafal R D

Veterans Affairs Medical Center-Neurology, Martinez, CA 94553, USA.
ahayes@ebire.org

Journal of cognitive neuroscience (UNITED STATES) Mar 1998, 10 (2)
p178-98, ISSN 0898-929X Journal Code: 8910747

Contract/Grant No.: 2 P01 NS17778; NS; NINDS

Document type: Clinical Trial; Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

Parkinson patients were tested in two paradigms to test the hypothesis that the basal ganglia are involved in the shifting of attentional set. Set shifting means a respecification of the conditions that regulate responding, a process sometimes referred to as an executive process. In one paradigm, upon the appearance of each stimulus, subjects were instructed to respond either to its color or to its **shape**. In a second paradigm, subjects learned to produce short sequences of three keypresses in response to two arbitrary stimuli. Reaction times were compared for the cases where

set either remained the same or changed for two successive stimuli. Parkinson patients were slow to change set compared to controls. Parkinson patients were also less able to filter the competing but irrelevant set than were control subjects. The switching deficit appears to be dopamine based; the magnitude of the shifting deficit was related to the degree to which l-dopa-based medication ameliorated patients' motor symptoms. Moreover, temporary withholding of medication, a so-called off manipulation, increased the time to switch. Using the framework of equilibrium point theory of movement, we discuss how a set switching deficit may also underlie clinical motor disturbances seen in Parkinson's disease.

Record Date Created: 19980615

Record Date Completed: 19980615

; Aged; Antiparkinson Agents-- **therapeutic** use-- **TU** ; Attention--drug effects--DE; Attention--physiology--PH; Color Perception--physiology--PH; Form Perception--physiology--PH; Middle Age; Parkinson Disease--drug **therapy** --DT; Parkinson Disease--psychology--PX; **Photic Stimulation** ; Psychomotor Performance--drug effects--DE; Psychomotor Performance --physiology--PH; Reaction Time--drug effects--DE; Reaction...

File 5:Biosis Previews(R) 1969-2003/Jun W4
File 73:EMBASE 1974-2003/Jun W4
File 35:Dissertation Abs Online 1861-2003/May
File 34:SciSearch(R) Cited Ref Sci 1990-2003/Jun W4
File 434:SciSearch(R) Cited Ref Sci 1974-1989/Dec
File 144:Pascal 1973-2003/Jun W3
File 2:INSPEC 1969-2003/Jun W4
File 6:NTIS 1964-2003/Jun W5
File 8:Ei Compendex(R) 1970-2003/Jun W4
File 99:Wilson Appl. Sci & Tech Abs 1983-2003/May
File 65:Inside Conferences 1993-2003/Jun W4
File 94:JICST-EPlus 1985-2003/Jun W4
File 95:TEME-Technology & Management 1989-2003/Jun W2
Set Items Description
S1 3510 ((LIGHT OR PHOTON) (2W) DIODE? ? OR LED OR LEDS OR LD OR LDS-
) (10N) ARRAY? ?
S2 5155936 THERAP?
S3 1357824 SHAPE? ? OR SHAPING OR SHAPABLE OR SHAPEABLE OR SHAPEABILI-
TY OR SHAPABILITY
S4 18846 PHOTOTHERAP?
S5 1 S1 AND S3 AND S4
S6 5653 PHOTIC() STIMULATION
S7 0 S1 AND S3 AND S6
S8 0 S1 AND S2 AND S3
S9 3 S1 AND S2 AND S3
S10 2 S9 NOT S5 [duplicates]
S11 632268 (LIGHT OR PHOTON) (2W) DIODE? ? OR SOLID() STATE() LAMP? ? OR -
LED OR LEDS
S12 10798341 THERAP? OR TREAT OR TREATS OR TREATMENT OR TREATED OR TREA-
TING
S13 1167286 SHAPE OR SHAPES OR SHAPING OR SHAPABLE OR SHAPEABLE OR SHAP-
EABILITY OR SHAPABILITY OR MOLD???? OR MOULD???? OR MOLDABILI-
TY OR MOULDABILITY
S14 407 (HEAT??? OR LIGHT???) (2W) (PAD OR PADS)
S15 1889 S11 AND S12 AND S3
S16 1 S15 AND (S4 OR S6) [a duplicate]

5/9/1 (Item 1 from file: 144)

DIALOG(R) File 144:Pascal

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14841135 PASCAL No.: 00-0524952

Photomatrix LED therapy of extensive cutaneous pathology

Lasers in surgery : advanced characterization, therapeutics, and systems

X : San Jose CA, 22-23, 25 January 2000

ZHAROV V P; MENYAEV Y A; ZHAROVA I Z; LEVIEV D O; TSAREV V N; SARANTSEV V
P; KRUSIC J

ANDERSON R Rox, ed; BARTELS Kenneth E, ed; BASS Lawrence S, ed; GARRETT C
Gaelyn, ed; GREGORY Kenton W, ed; KOLLIAS Nikiforos, ed; LUI Harvey, ed;
MALEK Reza S, ed; PEAVY George M, ed; REIDENBACH Hans-Dieter, ed; REINISCH
Lou, ed; ROBINSON David S, ed; TATE Lloyd P, ed; TROWERS Eugene A, ed;
WOODWARD Timothy A, ed

Bauman Moscow State Technical Univ., Moscow, Russia; Semashko Moscow
State Medical Stomatological Univ., Moscow, Russia; Scientific Production
Association TELAS, Moscow, Russia; Technomedica Lab., Ljubljana, Slovenia
International Society for Optical Engineering, Bellingham WA, United
States

Lasers in surgery. Conference, 10 (San Jose CA USA) 2000-01-22
Journal: SPIE proceedings series, 2000, 3907 169-177
ISBN: 0-8194-3523-6 ISSN: 1017-2653 Availability: INIST-21760;
354000090096560200

No. of Refs.: 13 ref.

Document Type: P (Serial); C (Conference Proceedings) ; A (Analytic)

Country of Publication: United States

Language: English

Standard sources of radiation have not sufficient efficiency at treating spatially extended pathology, especially when pathologic areas involve opposite sides of the human being's body or when they are uneven in **shape**. The typical examples of such pathology are extensive burns, oedema, inflammatory processes, infectious wounds, actinic keratosis, psoriasis, arthritis and neurological diseases. Superbright LEDs gathered in a matrix and grasping the area of irradiation are the most suitable sources of radiation. This article presents the result of investigation of the effectiveness of various types of the blue-to-infrared spectrum range **LED array** that allow irradiating a surface with an area from several cm SUP 2 to several thousand cm SUP 2 including the whole human being's body with the intensity varying from 1 to 100 mW/cm SUP 2 . Besides the matrixes, composed of separate light diodes, modular systems with separate monolithic hybrid chips with a high density of positioning the sources of radiation are considered. The peculiarities and results of applying such systems to treat oedema, cancer, weight regulation, neurological diseases, different infections diseases in combination with PDT, stomatitis and paradontosis are analyzed. The parameters of the photomatrix LED for different spectral regions and different geometry from flat **shape** to semispherical and cylindrical are presented. The perspective combination photomatrix LED with another therapeutical devices including photovacuum and photomagnetic therapy are considered.

English Descriptors: Treatment efficiency; Light emitting diode; Infrared spectrometry; Chip; Hybrid system; Device; Geometrical factor; Laser irradiation; **Phototherapy** ; Combined treatment; Human

Broad Descriptors: Skin disease; Peau pathologie; Piel patologia

Classification Codes: 002B26A

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File 98:General Sci Abs/Full-Text 1984-2003/May
File 9:Business & Industry(R) Jul/1994-2003/Jun 27
File 16:Gale Group PROMT(R) 1990-2003/Jun 30
File 160:Gale Group PROMT(R) 1972-1989
File 148:Gale Group Trade & Industry DB 1976-2003/Jun 26
File 621:Gale Group New Prod.Annou.(R) 1985-2003/Jun 26
File 149:TGG Health&Wellness DB(SM) 1976-2003/Jun W4
File 636:Gale Group Newsletter DB(TM) 1987-2003/Jun 25
File 441:ESPICOM Pharm&Med DEVICE NEWS 2003/Jun W4
File 444:New England Journal of Med. 1985-2003/Jun W5
File 442:AMA Journals 1982-2003/Dec B2
File 20:Dialog Global Reporter 1997-2003/Jun 30

Set	Items	Description
S1	3048	((LIGHT OR PHOTON) (2W)DIODE? ? OR LED OR LEDS OR LD OR LDS-) (10N)ARRAY? ?
S2	1041489	THERAP?
S3	957108	SHAPE? ? OR SHAPING OR SHAPABLE OR SHAPEABLE OR SHAPEABILI- TY OR SHAPABILITY
S4	4847	PHOTOTHERAP? OR PHOTIC()STIMULATION
S5	54	S1(S)S3
S6	1	S2(S)S5
S7	0	S5 (S)S4
S8	0	S5 AND S4/TI,DE
S9	0	S1 AND S3 AND S5/TI,DE
S10	78	S1 AND S3 AND (S2 OR S5)
S11	61	RD (unique items)
S12	13	S11/2002:2003
S13	48	S11 NOT S12
S14	235728	S2/TI,DE OR S4/TI,DE
S15	0	S13 AND S14
S16	48	Sort S13/ALL/PD,D

6/3,AB,K/1 (Item 1 from file: 148)
DIALOG(R)File 148:Gale Group Trade & Industry DB
(c)2003 The Gale Group. All rts. reserv.
03319371 SUPPLIER NUMBER: 05279000 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Striking it rich in biotech.
Gannes, Stuart
Fortune, v116, p131(5)
Nov 9, 1987
ISSN: 0015-8259 LANGUAGE: ENGLISH RECORD TYPE: FULLTEXT
WORD COUNT: 3770 LINE COUNT: 00287

16/3,AB,K/31 (Item 31 from file: 9)
DIALOG(R)File 9:Business & Industry(R)
(c) 2003 Resp. DB Svcs. All rts. reserv.
1078412 Supplier Number: 01078412
Versatile Holders For Mounting LCDs
(Bivar Inc develops the 922 and 923 LED holders that can mount LEDs
singularly, in arrays or horizontally)
Electronic Buyers News, n 932, p 31
November 28, 1994
DOCUMENT TYPE: Journal ISSN: 0164-6362 (United States)
LANGUAGE: English RECORD TYPE: Fulltext
WORD COUNT: 144
TEXT:

ASRC Searcher: Jeanne Horrigan
Serial 10/057512
June 30, 2003

10

The 922 and 923 LED holders developed by Bivar Inc. can mount LEDs singularly, in **arrays**, horizontally, and in single-or two-tiered configurations using T-1 3/4 rectangular LEDs in any color, **shape**, or intensity...

File 350:Derwent WPIX 1963-2003/UD,UM &UP=200341

File 347:JAPIO Oct 1976-2003/Feb(Updated 030603)

File 371:French Patents 1961-2002/BOPI 200209

Set Items Description

S1 7545 ((LIGHT OR PHOTON) (2W)DIODE? ? OR LED OR LEDS OR LD OR LDS-
) (10N)ARRAY? ?
S2 91834 THERAP?
S3 1655646 SHAPE? ? OR SHAPING OR SHAPABLE OR SHAPEABLE OR SHAPEABILI-
TY OR SHAPABILITY
S4 6 S1 AND S2 AND S3
S5 323 PHOTOTHERAP? OR PHOTIC()STIMULATION
S6 1 S1 AND S3 AND S5
S7 0 S6 NOT S4
S8 20 IC=A61N-005.00 OR IC=A61N-005/67
S9 266186 (LIGHT OR PHOTON) (2W)DIODE? ? OR SOLID()STATE()LAMP? ? OR -
LED OR LEDS
S10 1473969 THERAP? OR TREAT OR TREATS OR TREATMENT OR TREATED OR TREA-
TING
S11 1736383 SHAPE OR SHAPES ORSHAPING OR SHAPABLE OR SHAPEABLE OR SHAP-
EABILITY OR SHAPABILITY OR MOLD???? OR MOULD???? OR MOLDABILI-
TY OR MOULDABILITY
S12 1263 (HEAT??? OR LIGHT???) (2W) (PAD OR PADS)
S13 147208 SHAPING OR SHAPES
S14 15064 S9 AND S11
S15 533 (S5 OR S10) AND S14
S16 1 S15 AND S8
S17 1 S16 NOT S6 [a duplicate]
S18 1 S14 AND S8
S19 0 S18 NOT S17

4/7/1 (Item 1 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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015215807 **Image available**

WPI Acc No: 2003-276344/200327

Photo-therapy device for treatment of living organisms such as humans, includes array of LEDs arranged in predetermined pattern, in hollow-shaped bottom and in movable lid

Patent Assignee: SULLIVAN J (SULL-I)

Inventor: SULLIVAN J

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20020198575	A1	20021226	US 2000664074	A	20000918	200327 B
			US 2002152020	A	20020522	

Priority Applications (No Type Date): US 2000664074 A 20000918; US
2002152020 A 20020522

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
US 20020198575	A1	13	A61N-005/06	Div ex application US 2000664074

Abstract (Basic): US 20020198575 A1

NOVELTY - The device includes an **array LEDs** (B) arranged in a predetermined pattern, in a hollow- **shaped** bottom and in a movable lid attached to the bottom. A controller provided within the hollow- **shaped** bottom or in the lid, controls the operation of the LEDs. The control knobs that are externally connected to the bottom/lid, electrically

contacts the control circuit.

USE - Photo- **therapy** device for providing treatments for pain relief, injury, healing to humans, animals and plants.

ADVANTAGE - Enables the practitioner to provide more effective and successful treatment for living organisms from a comfortable distance, thereby assuring safety for the practitioner. Facilitates timely and advantageous treatment of entire body structure rather than the limited treatment of a localized area or spot, thereby saving time and money.

DESCRIPTION OF DRAWING(S) - The figure shows a perspective view of the light panel for photo- **therapy** device.

LEDs (3)

pp; 13 DwgNo 1/7

Derwent Class: P34; S05

International Patent Class (Main): A61N-005/06

International Patent Class (Additional): A61N-001/00

4/7/2 (Item 2 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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014462551 **Image available**

WPI Acc No: 2002-283254/200233

Light source for photodynamic therapy and/or diagnosis, has non-planar array of light emitting diodes conforming with shape of external area of patient

Patent Assignee: PHOTO THERAPEUTICS LTD (PHOT-N)

Inventor: WHITEHURST C

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
GB 2360460	A	20010926	GB 20009491	A	20000417	200233 B

Priority Applications (No Type Date): GB 20007085 A 20000323

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
GB 2360460	A		37	A61N-005/06	

Abstract (Basic): GB 2360460 A

NOVELTY - The light source has a non-planar **array** of **light emitting diodes** (L) conforming with the **shape** of external area of patient to be treated or diagnosed.

USE - For photodynamic **therapy** and/or diagnosis, especially for treatment of oncological and non-oncological skin diseases such as actinic/solar keratoses, Bowen's disease, superficial basal cell carcinoma, squamous cell carcinoma, intraepithelial carcinoma, mycosis fungoides, T-cell lymphoma, acne and seborrhoea, eczema, psoriasis, nevus sebaceous, gastrointestinal conditions e.g. Barratt's oesophagus and colorectal carcinomas, gynaecological disorders e.g. excessive uterine bleeding, oral cancers e.g. pre-malignant or dysplastic lesions and squamous cell carcinomas, viral infections such as herpes simplex, molluscum contagiosum, and warts such as recalcitrant, verruca vulgaris or verruca plantaris, alopecia areata, or hirsutism, and for treatment of very large or multiple lesions. Also used for cosmetic treatments with photosensitizing drug for portwine stain removal and hair restoration/removal, and without photosensitizing drug for skin rejuvenation, wrinkle removal, or biostimulation, wound healing.

ADVANTAGE - The non-planar **LED array** such as rectangular or square **LED array** allows precise application of light to the external area of the patient to be treated and follows the contours of the area to be treated or diagnosed, correctly.

DESCRIPTION OF DRAWING(S) - The figures show two different **shapes** of flexible **LED array**, and a flexible **array** applied as a patch onto the skin of a patient.

Light emitting diodes (L)

pp; 37 DwgNo 23a, 23b, 23c/25

Derwent Class: P34; S05; U12

International Patent Class (Main): A61N-005/06

4/7/3 (Item 3 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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012496377 **Image available**

WPI Acc No: 1999-302485/199925

Illumination source for electromagnetic radiation therapy

Patent Assignee: VIRULITE LTD (VIRU-N)

Inventor: DOUGAL G R P

Number of Countries: 082 Number of Patents: 007

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 9919024	A1	19990422	WO 98GB3073	A	19981012	199925 B
AU 9895474	A	19990503	AU 9895474	A	19981012	199937
GB 2344532	A	20000614	WO 98GB3073	A	19981012	200032
			GB 20006523	A	20000320	
EP 1021223	A1	20000726	EP 98949091	A	19981012	200037
			WO 98GB3073	A	19981012	
AU 737699	B	20010830	AU 9895474	A	19981012	200155
JP 2001519217	W	20011023	WO 98GB3073	A	19981012	200202
			JP 2000515654	A	19981012	
GB 2344532	B	20020703	WO 98GB3073	A	19981012	200251
			GB 20006523	A	20000320	

Priority Applications (No Type Date): GB 9727441 A 19971231; GB 9721506 A 19971010

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 9919024 A1 E 38 A61N-005/06

Designated States (National): AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE GH GM HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SZ UG ZW

AU 9895474 A Based on patent WO 9919024

GB 2344532 A A61N-005/06 Based on patent WO 9919024

EP 1021223 A1 E A61N-005/06 Based on patent WO 9919024

Designated States (Regional): AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

AU 737699 B A61N-005/06 Previous Publ. patent AU 9895474

Based on patent WO 9919024

JP 2001519217 W 41 A61N-005/06 Based on patent WO 9919024

GB 2344532 B A61N-005/06 Based on patent WO 9919024

Abstract (Basic): WO 9919024 A1

NOVELTY - The light unit is used to treat medical conditions. The unit has a hand-held casing (4) that contains a number of batteries (3). The casing has two switches (5) that must be operated together to activate the unit. The **shaped** front end (2) has an **array** of **light emitting diodes** behind it emitting radiation in the 950-15000 nm

range. The light is applied to the medical site for a timed period and the light can be pulsed. Larger treatment sites can be treated by a larger panel mounted structure.

DETAILED DESCRIPTION - INDEPENDANT CLAIMS -

(1) Defines treatment procedures for herpes, bacterial, viral infections and various other ailments

USE - Light treatment of disease

ADVANTAGE - Provides rapid improvement and prevents recurrences of certain difficult medical conditions

DESCRIPTION OF DRAWING(S) - Hand-held light unit

Front end (2)

Batteries (3)

Housing (4)

Switches (5)

Hook (6)

pp; 38 DwgNo 1/14

Derwent Class: P34; S05

International Patent Class (Main): A61N-005/06

4/7/4 (Item 4 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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011634473 **Image available**

WPI Acc No: 1998-051601/199805

Semiconductor device for phototherapeutic light delivery system - has thin perforated sheet as cathode having upper surface and bottom surface with cup shaped conical openings in between, each perforation overlying a LED in an array on anodic support

Patent Assignee: PDT SYSTEMS INC (PDTS-N)

Inventor: DALTON B K; DOIRON D R; DUNN J B; GRAHAM G S; LYTL E A C

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 5698866	A	19971216	US 94308278	A	19940919	199805 B
			US 96654059	A	19960528	

Priority Applications (No Type Date): US 96654059 A 19960528; US 94308278 A 19940919

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
-----------	------	--------	----------	--------------

US 5698866	A	16	H01L-033/00	CIP of application US 94308278
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Abstract (Basic): US 5698866 A

The device includes a semiconductor light source (160) that has a support (161) comprising a sheet of electrically and thermally conductive material with a planar upper surface containing a two-dimensional array of LEDs (92). Coupled to the support is an electrical connector from each LED and a cooling device (173) in thermal connection.

A cathode (162) includes a two-dimensional array of perforations on a single sheet of electrically conductive material between top and bottom surfaces, the bottom surface joined to the planar surface of the support by an electrically non-conducting adhesive (171). The perforations have a large circular opening on the top surface and a small circular opening on the bottom surface, with an surface in between comprising a reflective material. The centre of each of the small openings overlies the centre of one of the LEDs that it circumscribes.

USE - For large tissue surface area illumination in transcutaneous

treatment of variety of conditions e.g. psoriasis, hyperbilirubinaemia, tumours, cardiovascular disease, non-malignant hyperproliferative disease, skin lesions and cervical cancer.

ADVANTAGE - Efficient light source adaptable for certain applications of Photodynamic **Therapy** not requiring interstitial or endoscopic light delivery. Possesses wide output distribution pattern, small size, manageable cooling requirements and has high cumulative total output light power.

Dwg.17/23

Derwent Class: P34; U11; U12; X13

International Patent Class (Main): H01L-033/00

International Patent Class (Additional): A61N-001/30; H01L-023/34;
H02B-001/00

4/7/5 (Item 5 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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010874067 **Image available**

WPI Acc No: 1996-371018/199637

Opto-electronic module e.g. for large-scale LED array in medical photo-dynamic therapy - has LEDs and reflector units fixed to lead frame substrates held together by insulator, and includes connectors for assembling into array

Patent Assignee: QUANTUM DEVICES INC (QUAN-N)

Inventor: IGNATIUS R W; MARTIN T S

Number of Countries: 019 Number of Patents: 007

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 9618210	A1	19960613	WO 95US15894	A	19951207	199637 B
US 5660461	A	19970826	US 94351813	A	19941208	199740
EP 796506	A1	19970924	EP 95942578	A	19951207	199743
			WO 95US15894	A	19951207	
JP 10502772	W	19980310	WO 95US15894	A	19951207	199820
			JP 96517766	A	19951207	
CA 2204432	C	20010703	CA 2204432	A	19951207	200140
			WO 95US15894	A	19951207	
EP 796506	B1	20030402	EP 95942578	A	19951207	200325
			WO 95US15894	A	19951207	
DE 69530221	E	20030508	DE 630221	A	19951207	200338
			EP 95942578	A	19951207	
			WO 95US15894	A	19951207	

Priority Applications (No Type Date): US 94351813 A 19941208

Cited Patents: 1.Jnl.Ref; EP 273364; FR 2518317; JP 61075570; US 5278432

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 9618210 A1 E 28 H01L-025/075

Designated States (National): CA JP

Designated States (Regional): AT BE CH DE DK ES FR GB GR IE IT LU MC NL
PT SE

US 5660461 A 13 F21V-007/02

EP 796506 A1 E H01L-025/075 Based on patent WO 9618210

Designated States (Regional): DE GB NL

JP 10502772 W 33 H01L-025/07 Based on patent WO 9618210

CA 2204432 C E H05K-007/04 Based on patent WO 9618210

EP 796506 B1 E H01L-025/075 Based on patent WO 9618210

Designated States (Regional): DE GB NL

DE 69530221 E H01L-025/075 Based on patent EP 796506

Based on patent WO 9618210

Abstract (Basic): WO 9618210 A

The module includes several U- **shaped** lead frame substrates, with at least one optoelectronic device attached to each lead frame upper surface. A dove-tailed connector interconnects the lead frame substrate with at least one other lead frame of another module. Pref. the lead frame substrates in each module are separated and held together by an insulator. The lead frames pref. dissipate heat generated by the module.

Each module has an input electrical terminal in one lead frame and an output electrical terminal in another lead frame. The current input to a module pref. exceeds the rated forward current of the optoelectronic device. The device is pref. an LED. The module also includes a reflector, fixed to the lead frame adjacent to the LEDs, with a cone- **shaped** reflector for each LED. The modules can be snapped together.

USE/ADVANTAGE - Plant growth in environmental chamber; modules may be connected in series or parallel. Any desired size array can be assembled by interconnecting modules; reduced mfg. cost; increased power output with fewer LED components.

Dwg.6/8

Abstract (Equivalent): US 5660461 A

A module having at least one optoelectronic device, comprising:
at least one electrically and thermally conductive lead frame substrate having an upper surface and being adapted to act as a heat sink;

at least one optoelectronic device electrically connected to said upper surface of said lead frame substrate; and

at least one connector interconnected with said lead frame substrate that is adapted to interconnect said lead frame substrate with at least one other lead frame substrate of another module.

Dwg.8/8

Derwent Class: Q71; S05; U11; U12

International Patent Class (Main): F21V-007/02; H01L-025/07; H01L-025/075; H05K-007/04

International Patent Class (Additional): H01L-033/00; H01R-043/00

4/7/6 (Item 1 from file: 347)

DIALOG(R) File 347:JAPIO

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07197467 **Image available**

THERAPEUTIC LIGHT SOURCE AND METHOD

PUB. NO.: 2002-065875 [JP 2002065875 A]

PUBLISHED: March 05, 2002 (20020305)

INVENTOR(s): WHITEHURST COLIN

APPLICANT(s): PHOTO THERAPEUTICS LTD

APPL. NO.: 2001-084962 [JP 20011084962]

FILED: March 23, 2001 (20010323)

PRIORITY: 00 200007085 [GB 20007085], GB (United Kingdom), March 23, 2000 (20000323)

00 200009491 [GB 20009491], GB (United Kingdom), April 17, 2000 (20000417)

00 200030974 [GB 200030974], GB (United Kingdom), December 19, 2000 (20001219)

ABSTRACT

PROBLEM TO BE SOLVED: To provide a light source for **therapy** and/or diagnosis without providing a non-flat **array** of **light** emitting **diodes**

having a **shape** following the **shape** of an outside area as an object of the **therapy** or a diagnosis.

SOLUTION: A **therapeutic** light source for the photodynamic **therapy** (PDT) is provided with a cooling **LED** (Lx, y), and the air is discharged near an **array**. The array can be fitted to a distant end of a hand piece appropriate for the invasive **therapy**. A LED can be connected to light guides (W, L). The light emitting spectrum of the LED is practically limited in a range at 550 nm-660 nm, and desirably limited to one of ranges at 590 nm-640 nm, 560 nm-644 nm, 650 nm-660 nm, and 550 nm-570 nm. As the **therapeutic** light source, the non-flat arrangement of light emitting diodes L following the **shape** of an outside area as an object of the **therapy** or the diagnosis may be provided. Further, as the light source, the non-flat surface arrangement of red light emitting diodes LR and the blue light emitting diodes LB fitted to the flexible packing freely to be separately switched may be provided.

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File 348:EUROPEAN PATENTS 1978-2003/Jun W04

File 349:PCT FULLTEXT 1979-2002/UB=20030626,UT=20030619

Set Items Description

S1 5058 ((LIGHT OR PHOTON) (2W)DIODE? ? OR LED OR LEDS OR LD OR LDS-
) (10N)ARRAY? ?
S2 148380 THERAP?
S3 578213 SHAPE? ? OR SHAPING OR SHAPABLE OR SHAPEABLE OR SHAPEABILI-
TY OR SHAPABILITY
S4 184 S1 AND S2 AND S3
S5 717 PHOTOTHERAP? OR PHOTIC()STIMULATION
S6 18 S1 AND S3 AND S5
S7 2 S6 NOT S4
S8 0 IC=A61N-005.00 OR IC=A61N-005/67
S9 106210 (LIGHT OR PHOTON) (2W)DIODE? ? OR SOLID()STATE()LAMP? ? OR -
LED OR LEDS
S10 482469 THERAP? OR TREAT OR TREATS OR TREATMENT OR TREATED OR TREA-
TING
S11 506599 SHAPE OR SHAPES ORSHAPING OR SHAPABLE OR SHAPEABLE OR SHAP-
EABILITY OR SHAPABILITY OR MOLD???? OR MOULD???? OR MOLDABILI-
TY OR MOULDABILITY
S12 1837 (HEAT??? OR LIGHT???) (2W) (PAD OR PADS)
S13 145964 SHAPING OR SHAPES
S14 40851 S9 AND S11
S15 16599 (S5 OR S10) AND S14
S16 0 S15 AND S8
S17 0 S16 NOT S6
S18 0 S14 AND S8
S19 0 S18 NOT S17
S20 447 S1(S)S3
S21 2 S5(S)S20
S22 6 S20(S)S2
S23 5 S22 NOT S21
S24 6056 S9(S) (S11 OR S13)
S25 4 S12(S)S24
S26 4 S25 NOT S21:S22
S27 3 S24(S)S5
S28 1 S27 NOT (S21 OR S22 OR S25)

21/6/1 (Item 1 from file: 349)

00964737 **Image available**

PHOTODYNAMIC THERAPY LAMP

Publication Year: 2002

21/3,AB,K/2 (Item 2 from file: 349)

DIALOG(R)File 349:PCT FULLTEXT

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00289582

A PORTABLE LIGHT EMITTING APPARATUS WITH A SEMICONDUCTOR EMITTER ARRAY
APPAREIL LUMINESCENT PORTABLE A RESEAU D'EMETTEURS A SEMI-CONDUCTEURS

Patent Applicant/Assignee:

EFOS CANADA INC,

KENNEDY John,

KAYSER Roy,

Inventor(s):

KENNEDY John,

KAYSER Roy,

Patent and Priority Information (Country, Number, Date):

Patent: WO 9507731 A1 19950323
Application: WO 94CA543 19940912 (PCT/WO CA9400543)
Priority Application: US 93571 19930913

Designated States: AM AT AU BB BG BR BY CA CH CN CZ DE DK EE ES FI GB GE HU
JP KE KG KP KR KZ LK LR LT LU LV MD MG MN MW NL NO NZ PL PT RO RU SD SE
SI SK TJ TT UA US UZ VN KE MW SD AT BE CH DE DK ES FR GB GR IE IT LU MC
NL PT SE BF BJ CF CG CI CM GA GN ML MR NE SN TD TG

Publication Language: English

Fulltext Word Count: 6859

English Abstract

A hand-held portable light emitting device (10) suitable for medical and industrial photocuring and phototherapy applications. The hand-held portable light emitting device (10) comprises: (a) a portable housing (12) having a front end and rear end; (b) light emitting semiconducting means (14) having a matrix of a plurality of light emitting diode means (22) mounted at said front end, said light emitting diode means (22) being operative to emit light energy suitable for initiating a photo-reaction; (c) power means (20) coupled to said semiconducting means (14) and operative to provide the electrical power for energizing said plurality of light emitting diode means (22) to emit in combination said light energy; (d) control means (48) connected to said semiconducting means (14) and said power means (20), and operative to vary the level of said light energy; (e) mounting means provided at said front end of said housing; and (f) an optical assembly (18) mounted to said mounting means, said optical assembly being operative to direct said light energy generated from said light emitting diode means to a photo-reaction location disposed to said optical assembly.

Fulltext Availability:

Detailed Description

Detailed Description

... element, such as the TIR Lens described above, which collimates the light emitting from the **LED array** 14. The enclosure 12' can also include a bendable elbow 138 which allows the cap...

...and light beam to be oriented in an optimal position or angle for photocuring or **phototherapy**. Preferably, the elbow 138 comprises a flexible sheath with "memory" that can be bent to a **shape** so that the device 10 comfortably fits the palm of the dentist or doctor and...

23/6/3 (Item 2 from file: 349)

00335698 **Image available**

ARRAYS OF OPTOELECTRONIC DEVICES AND METHOD OF MAKING SAME

Publication Year: 1996

23/3,AB,K/1 (Item 1 from file: 348)

DIALOG(R) File 348:EUROPEAN PATENTS

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01335331

Therapeutic light source

Therapeutische Lichtquelle

Source lumineuse therapeutique

PATENT ASSIGNEE:

Photo Therapeutics Limited, (2865311), Station Business Centre, Station House, Stamford New Road, Altrincham, Cheshire WA14 1EP, (GB),

(Applicant designated States: all)

INVENTOR:

Whitehurst, Colin, c/o Photo-Therapeutics Ltd., Stamford New Road,
Altrincham, Cheshire WA14 1EP, (GB)

LEGAL REPRESENTATIVE:

Cross, James Peter Archibald et al (77091), R.G.C. Jenkins & Co., 26
Caxton Street, London SW1H 0RJ, (GB)

PATENT (CC, No, Kind, Date): EP 1138349 A2 011004 (Basic)

EP 1138349 A3 020925

APPLICATION (CC, No, Date): EP 2001302586 010320;

PRIORITY (CC, No, Date): GB 7085 000323; GB 9491 000417; GB 30974 001219

DESIGNATED STATES: AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI;
LU; MC; NL; PT; SE; TR

EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI

INTERNATIONAL PATENT CLASS: A61N-005/06

ABSTRACT EP 1138349 A2

A **therapeutic** light source, for example for photodynamic **therapy** (PDT), comprises an air-cooled **array** of **LED** 's (Lx,y)), the air being vented in the vicinity of the array. The array may be mounted at the distal end of a hand piece suitable for invasive **therapy**. The LED's may be coupled to a light guide (W, L). The emission spectra of the LED's may be substantially limited to the range 550 to 660 nm, and preferably to one of the ranges 590 to 640 nm, 560 to 644 nm, 650 to 660 nm, and 550 to 570 nm. The **therapeutic** light source may comprise a non-planar **array** of **light**-emitting **diodes** L conforming with the **shape** of an external area to be treated or diagnosed. The **therapeutic** light source may comprise a non-planar **array** of independently switchable red and blue **light**-emitting **diodes** LR)), LB)), mounted on a flexible backing.

ABSTRACT WORD COUNT: 147

NOTE: Figure number on first page: 6

LANGUAGE (Publication,Procedural,Application): English; English; English

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
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CLAIMS A	(English)	200140	1662
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SPEC A	(English)	200140	4443
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Total word count - document A	6105
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Total word count - document B	0
-------------------------------	---

Total word count - documents A + B	6105
------------------------------------	------

...SPECIFICATION there is provided a light source for therapy and/or diagnosis, comprising a non-planar **array** of **light**-emitting **diodes** conforming with the **shape** of an external area to be treated or diagnosed...

23/3,AB,K/2 (Item 1 from file: 349)

DIALOG(R)File 349:PCT FULLTEXT

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00578354

TRANSCUTANEOUS PHOTODYNAMIC TREATMENT OF TARGETED CELLS

TRAITEMENT PHOTODYNAMIQUE TRANSCUTANE DE CELLULES CIBLES

Patent Applicant/Assignee:

LIGHT SCIENCES LTD,

CHEN James,

Inventor(s):

CHEN James,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200041727 A1 20000720 (WO 0041727)

Application: WO 2000US944 20000114 (PCT/WO US0000944)

Priority Application: US 99116234 19990115; US 99271575 19990318

Designated States: AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM
EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS
LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM
TR TT UA UG US UZ VN YU ZA ZW GH GM KE LS MW SD SL SZ TZ UG ZW AM AZ BY
KG KZ MD RU TJ TM AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE
BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG

Publication Language: English

Fulltext Word Count: 15887

English Abstract

The present invention is drawn to methods and compounds for photodynamic therapy (PDT) of a target tissue or compositions in a mammalian subject, using a light source that preferably transmits light to a treatment site transcutaneously. The method provides for administering to the subject a therapeutically effective amount of a targeted substance, which is either a targeted photosensitizing agent, or a photosensitizing agent delivery system, or a targeted prodrug. This targeted substance preferably selectively binds to the target tissue. Light at a wavelength or waveband corresponding to that which is absorbed by the targeted substance is then administered. The light intensity is relatively low, but a high total fluence is employed to ensure the activation of the targeted photosensitizing agent or targeted prodrug product. Transcutaneous PDT is useful in the treatment of specifically selected target tissues, such as vascular endothelial tissue, the abnormal vascular walls of tumors, solid tumors of the head and neck, tumors of the gastrointestinal tract, tumors of the liver, tumors of the breast, tumors of the prostate, tumors of the lung, nonsolid tumors, malignant cells of the hematopoietic and lymphoid tissue and other lesions in the vascular system or bone marrow, and tissue or cells related to autoimmune and inflammatory disease.

Fulltext Availability:

Claims

Claim

- ... the photosensitizer agents noted above may be used for photosensitizing drug molecules 108, in the **therapy** of this Example. The A-PC is preferably formulated into a pharmaceutically acceptable compound that...
- ...ingested and releases the conjugate into the terminal ileum and colon. At the time of **therapy**, the bowel should have been prepped in much the same manner as done in preparing...steam inhalation to remove any unbound APC (if inhaled). The time required to ensure a **therapeutically** effective dose of bound APC may be routinely determined clinically using standard clinical practices and...
- ...is disposed adjacent to the thorax and activated for a sufficient time to ensure that **therapeutic** irradiation has occurred, which may be routinely determined clinically using conventional clinical practices and procedures...
- ...blood flow is slower, to allow more time for APC activation.

EXAMPLE9

Liver Cancer Photodynamic **Therapy** by Transillumination

This Example uses the present invention for the treatment of an organ infiltrated...

- ...It is well within the skill of the ordinary skilled artisan to determine the specific **therapeutically** effective dose using standard clinical practices and procedures. Similarly, a specific acceptable fluence rate and...this disclosure.

EXAMPLE 10

Rapid Tissue Clearance and Prolonged Tumor Retention followed by

Transcutaneous Photodynamic **Therapy**

The present example employs Lutrin TM (lutetium texaphyrin, brand; Pharmacyclics, Inc, Sunnyvale, CA) as a...

- ...only in the tumor tissues. An energy source, such as a light source, including: an **LED array**; a laser diode **array** or any other electroluminescent device, further including a light emitting flat panel, flexible or non...
- ...normal tissues, only the tumor tissue is destroyed. Additionally, the quantum mechanics of transcutaneous photodynamic **therapy** result in an amplification of the photosensitizer agent. Since each molecule of the photosensitizer agent...
- ...singlet oxygen production upon photoactivation or stimulation of an immune response or both, transcutaneous photodynamic **therapy** demonstrates less adverse reaction or collateral normal tissue damage than most other forms of cancer **therapy**.

Example I 1

PDT of Human Gall Bladder Carcinoma Cells - In Vitro

Human gall bladder carcinoma cells are grown to confluence in 12-well plates. An **array** or light emitting **diodes** are suspended above the plates to provide illumination. The cells are loaded with a variety...

23/3,AB,K/4 (Item 3 from file: 349)

DIALOG(R) File 349:PCT FULLTEXT

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00267496

LIGHT EMITTING DIODE SOURCE FOR PHOTODYNAMIC THERAPY

DIODES ELECTROLUMINESCENTES UTILISEES POUR LA THERAPIE PHOTODYNAMIQUE

Patent Applicant/Assignee:

PDT SYSTEMS INC,

Inventor(s):

LYTLE A Charles,

DALTON Brian K,

DUNN Brian J,

DOIRON Daniel R,

Patent and Priority Information (Country, Number, Date):

Patent: WO 9415666 A1 19940721

Application: WO 94US506 19940112 (PCT/WO US9400506)

Priority Application: US 933537 19930113

Designated States: AU CA JP RU AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE

Publication Language: English

Fulltext Word Count: 2876

English Abstract

A system comprising a fluid cooled array of light emitting diodes (LEDs) for producing red (660 NM) light for photodynamic therapy is disclosed. The light is produced by a plurality of overdriven, water cooled LEDs arrayed on a preferably disposable puck. The LED puck (13) is releasably connected to an interchangeable LED hand piece (12). The system can be configured for illumination of flat surfaces such as for treatment of the chest or back, or for cylindrical surfaces such as found in the cervix or colon, by proper selection of the LED hand piece (12) and puck design (13).

Fulltext Availability:

Detailed Description

Detailed Description

- ... output and wavelength detector shown in Figure 8 which could conveniently be installed in the **LED array** driver 11.

In summary, it has been shown that an **LED array** can be configured to provide power and wavelength outputs suitable for PDT, In order...
...broadening of the output light; and (b) a shorter lifetime. To overcome these problems, the **LED array** is mounted on a puck enabling the **LED array** to be cooled to control the bandwidth and wavelength of the output light and increase...
...junction at the desired temperature,
The foregoing preferred embodiment of the LED system for photodynamic **therapy** provides a low cost, high power excitation source for PDT which can be produced in a variety of **shapes** used in a wide variety of applications...

23/3,AB,K/5 (Item 4 from file: 349)
DIALOG(R) File 349:PCT FULLTEXT
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00247554

HIGH-POWER LIGHT-EMITTING DIODES FOR PHOTODYNAMIC THERAPY
DIODES ELECTROLUMINESCENTES TRES PUISSANTES DESTINEES A LA THERAPIE
PHOTODYNAMIQUE

Patent Applicant/Assignee:
QUADRA LOGIC TECHNOLOGIES INC,
AMERICAN CYANIMID COMPANY,

Inventor(s):
BOWER Robert D,
STONEFIELD Michael D L,
WATERFIELD Elizabeth M,
SAKAGUCHI Edwin M,

Patent and Priority Information (Country, Number, Date):

Patent: WO 9321842 A1 19931111
Application: WO 93US1893 19930222 (PCT/WO US9301893)
Priority Application: US 92877944 19920430

Designated States: AU CA FI JP KR NO AT BE CH DE DK ES FR GB GR IE IT LU MC
NL PT SE

Publication Language: English

Fulltext Word Count: 7894

English Abstract

A method and system for activating photosensitizers for PDT in vivo, extracorporeally, and in vitro, where the light sources used are high-power light-emitting diodes (LEDs) and the LED wavelength band output is selected to access a given absorption band of the photosensitizer. The system includes a power supply (1), an array of LEDs (2), feedback loop (3) for monitoring LED output power and feedback loop (4) for monitoring light delivered to target area (5).

Fulltext Availability:

Claims

Claim

... in which the stabilizing means comprises:

a photodetector for monitoring output light power of the **array of light - emitting diodes**, the photodetector generating an output signal based upon: to the monitored output light power; and means for adjusting electrical power input to the **array of light-emitting diodes** in response to fluctuations in the photodetector output signal,

6* The apparatus of claim 1...

...monitoring the light dose delivered to said area; and means for discontinuing output from the **array of light-emitting diodes** when a desired

dose has been delivered to said area.

8* The apparatus of claim 1, in which the operating means comprises:
means for monitoring **therapeutic** effect at said area; and
means for discontinuing output from the **array** of **light-emitting diodes** when
a desired **therapeutic** effect has been achieved,

9w The apparatus of claim 1, wherein the **array** of **light-emitting diodes** is
mounted on a flexible circuit board **shaped** to enable delivery of a uniform
dose of light to a non-flat surface.

100 The apparatus of claim 1, wherein the **array** of **light-emitting diodes** is
mounted on a curved circuit board **shaped** to enable delivery of a uniform dose
of light to a non-flat surface...

26/6/1 (Item 1 from file: 348)

00303642

Light emitting diode array chip and method of fabricating the same.

28/3,AB,K/1 (Item 1 from file: 349)

DIALOG(R)File 349:PCT FULLTEXT

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00737820

LIGHT EMITTING PANEL ASSEMBLIES

ASSEMBLAGES DE PANNEAUX EMETTEURS DE LUMIERE

Patent Applicant/Assignee:

LUMITEX INC, 8443 Dow Circle, Strongsville, OH 44136, US, US (Residence),
US (Nationality), (For all designated states except: US)

Patent Applicant/Inventor:

PARKER Jeffery R, 14389 Placid Cove Drive, Strongsville, OH 44136, US, US
(Residence), US (Nationality), (Designated only for: US)

COGHLAN Gregory A, 7744 Maple Way Drive, Olmsted Falls, OH 44138, US, US
(Residence), US (Nationality), (Designated only for: US)

EZELL Robert M, 1217 Jacoby Road, Copley, OH 44321, US, US (Residence),
US (Nationality), (Designated only for: US)

Legal Representative:

OTTO Donald D, Renner, Otto, Boisselle & Sklar, LLP, 1621 Euclid Avenue,
19th Floor, Cleveland, OH 44115, US

Patent and Priority Information (Country, Number, Date):

Patent: WO 200050807 A1 20000831 (WO 0050807)

Application: WO 2000US4499 20000223 (PCT/WO US0004499)

Priority Application: US 99256275 19990223

Designated States: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK

DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR

LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ

TM TR TT TZ UA UG US UZ VN YU ZA ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE

(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG

(AP) GH GM KE LS MW SD SL SZ TZ UG ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English

Filing Language: English

Fulltext Word Count: 11117

English Abstract

Light emitting panel assemblies include a light emitting panel member
(22) having a uniform or variable pattern of light extracting deformities
(109) of well defined shapes in or on one or more surfaces of the light
emitting panel (22). The size and **shape** as well as the depth and angular
orientation and position or location of the light emitting of the light

extracting deformities (109) may vary along the length and/or width of a panel surface area to obtain a desired light output distribution from the panel surface area. A focused light source (3) may be insert molded or cast within a light transition area of the light emitting panel to focus the light on an input surface of the light transition area with predetermined ray angles to fit a particular application. Molded supports may be provided on the panel member for supporting other parts or components in spaced relation therefrom.

Fulltext Availability:

Detailed Description

Detailed Description

... accordance with this invention which is particularly adapted to be used for different types of **phototherapy** treatment by exposing various portions of the skin or eyes of a person to light...

...1 50 includes a light emitting panel member 1 51 which may be in the **shape** of a pad or blanket. At one or both ends of the panel member 1 51 are one or more light transition areas 1 52 containing one or more **LEDs** or other light sources 3 for uniformly supplying light of any desired wavelength to the...

...both ends of the panel member. If desired, the light sources may be different colored **LEDs** so that the light from the **LEDs** can be mixed to produce virtually any desired colored light output distribution including white light from the panel member. Also, white **LEDs** may be used for producing a white light output distribution from the panel member...

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("light emitting diodes") AND (shape AND memory)

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☐ 1. JOPAL 2000

Oct 2000

SECTION 1 IPC CODE PERIODICAL AUTHOR TITLE PCT Year Vol Issue Pages No. Start End
A47C 023/06 110 1999 6 102 104 MÃ¼nter F et al Komfort und FunktionalitÃ¤t. A61B
017/22 224 1996 88 37 72 74 Weisener T et al Innovationsperspektive durch die

Mikrohydraulik...

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☐ 2. No Title

Sep 2000

...In orthopedic surgery, robots are routinely used to **shape** the femur to precisely fit
prosthetic hip joint replacements...70). One of the most common is the optical tracker.
Light-emitting diodes or reflective targets are attached to a probe, and a...

[<http://www.smpp.nwu.edu/savedLiterature/HoweMatsuokaRo...>]

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☐ 3. Doc1.PDF

Jan 2001

...scintillators, improved production techniques of pixilated scintillator arrays, special **light**

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("light emitting diodes")
AND ("shape memory")

We did this by adding
quotes to common phrases,
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guides, as well as novel fast readout schemes and fast and economical data acquisition...
[http://www.er.doe.gov/production/ober/73_reports/abq_a...]
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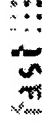
☐ [4. JOPAL 1998](#)
Sep 2000

...mechanical milling. C08F 020/14 91 1996 53 10 682 688 Tanio N **Light** scattering loss
and glass transition temperature of optical...Kruevitch P et al Mixed-sputter deposition of
Ni-Ti-Cu **shape memory** films. C23C 004/08 206 1996 280 2 188 198 Chen H C et...
[<http://www.wipo.org/scit/en/jopal/1998/may.pdf>]
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☐ [5. JOPAL 2001](#)
Jun 2001

...C22F 001/00 206 1998 315 2 305 309 Sato M et al Two-way **shape memory** effect of
sputter- deposited thin films of Ti 51.3 at...C23C 014/12 206 1998 331 2 101 105
Burrows P E et al **Light emitting** devices using vacuum deposited organic thin films.
C23C...

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("photon emitting diodes") AND (shape AND memory)

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("phototherapy diodes") AND (shape AND memory)

Search

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("phototherapy") AND (shape AND memory)

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